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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/548,141 | 04/13/2000 | Douglas Lee Schales | YOR9-2000-0185-US1 | 7716 |

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| EXAMINER |
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JACOBS, LASHONDA T

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| ART UNIT | PAPER NUMBER |
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2157

DATE MAILED: 06/29/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/548,141

Applicant(s)

SCHALES ET AL.

Examiner

LaShonda T. Jacobs

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This action is responsive to Applicant Request for Reconsideration filed on April 14, 2004.

Claims 1-39 are presented for further examination.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Riddle et al (hereinafter, "Riddle", 6,412,000).

As per claims 1, 34 and 38, Riddle discloses a method and apparatus for classifying a data packet, the method and means comprising:

- receiving the data packet at a root node of a classification tree (col. 4, lines 6-26, col. 9, lines 28-62 and col. 10, lines 19-56);
- successively passing the data packet to each child of a first tree level until a first child of the first tree level of the classification tree indicates a satisfaction of a node-criteria of said first child, and the first child forming said data packet into a matched packet (col. 4, lines 6-26, col. 9, lines 28-62, col. 10, lines 19-56 and col. 11, lines 25-36); and
- repeating the step of passing and forming for a next tree level until no first child of said next level at a succeeding next level indicates satisfaction of the node-criteria of said

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first child of said next level (col. 9, lines 28-62, col. 10, lines 19-56 and col. 11, lines 25-36).

As per claim 2, Riddle discloses:

- wherein the step of passing includes executing a set of code which returns a status indication (col. 5, lines 53-67, col. 9, lines 28-62, col. 10, lines 19-56 and col. 11, lines 25-36).

As per claim 3, Riddle discloses:

- wherein the step of forming includes the first child specifying a set of code to be run subsequently (col. 9, lines 28-62, col. 10, lines 19-56 and col. 11, lines 25-36).

As per claim 4, Riddle discloses:

- wherein the step of specifying includes specifying the set of code to be run following satisfaction (col. 9, lines 28-62, col. 10, lines 19-56 and col. 11, lines 25-36).

As per claim 5, Riddle further discloses:

- dynamically adding at least one node in at least one level of the classification tree (col. 13, lines 35-62).

As per claim 6, Riddle discloses:

- wherein said at least one new child node is a Real Audio node (col. 12, lines 3-12 and col. 13, lines 35-62).

As per claim 7, Riddle discloses a method for classifying a packet comprising:

- suspending a packet classification process in progress for said packet; and obtaining external information employed in said classifying (col. 9, lines 28-62, col. 10, lines 19-56 and col. 11, lines 25-36).

As per claim 8, Riddle discloses:

- wherein the step of obtaining includes augmenting a node-criteria of a node in a classification tree with external information (col. 9, lines 28-62, col. 10, lines 19-56, col. 11, lines 25-36 and col. 11, lines 48-67).

As per claim 9, Riddle discloses:

- wherein the external information includes identification of the originator of said packet (col. 11, lines 48-67).

As per claim 10, Riddle discloses:

- wherein the external information includes authentication of an originator of said packet (col. 11, lines 48-67).

As per claim 11, Riddle discloses:

- wherein the classification process is an extendible classifier process (col. 12, lines 27-63 and col. 13, lines 35-62).

As per claim 12, Riddle further discloses

- the step of parsing said matched packet and generating relevant information (col. 9, lines 28-62, col. 10, lines 19-56, col. 11, lines 25-36 and col. 11, lines 48-67).

As per claim 13, Riddle further discloses:

- the step of transforming said matched packet into a transformed packet (col. 9, lines 28-62, col. 10, lines 19-56, col. 11, lines 25-36 and col. 11, lines 48-67).

As per claim 14, Riddle further discloses:

- associating the packet with a last first child indicating satisfaction (col. 9, lines 28-62, col. 10, lines 19-56, col. 11, lines 25-36 and col. 11, lines 48-67).

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As per claim **15**, Riddle further discloses:

- executing a set of code in accordance with said last first-child (col. 9, lines 28-62, col. 10, lines 19-56 and col. 11, lines 25-36)

As per claim **16**, Riddle further discloses:

- determining a disposition of the data packet (col. 9, lines 28-62, col. 10, lines 19-56 and col. 11, lines 25-36 and col. 13, lines 35-62).

As per claim **17**, Riddle discloses a method for determining disposition of a packet received at a child node, said method comprising:

- passing said packet and a first disposition of said packet to an external process (col. 9, lines 28-62, col. 10, lines 19-56, col. 11, lines 25-36 and col. 11, lines 48-67); and
- said external process augmenting the packet disposition by employing a process specific means; and returning the augmented packet and an augmented disposition to the child node (col. 9, lines 28-62, col. 10, lines 19-56, col. 11, lines 25-36, col. 11, lines 48-67 and col. 13, lines 35-62).

As per claim **18**, Riddle further discloses:

- suspending a disposition process in progress for said packet (col. 11, lines 25-36).

As per claim **19**, Edwards discloses:

- wherein the augmented disposition includes identification of an originator of said packet (col. 11, lines 48-67).

As per claim **20**, Riddle discloses:

- wherein the augmented disposition includes authentication of an originator of said packet (col. 11, lines 48-67).

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As per claim **21**, Riddle discloses:

- wherein the disposition is employed for policy enforcement (col. 5, lines 30-38, col. 9, lines 28-62, col. 10, lines 19-56).

As per claim **22**, Riddle further discloses:

- employing the classification process as a firewall (col. 7, lines 10-28).

As per claim **23**, Riddle further discloses:

- employing the classification process for application level classification (col. 10, lines 59-67, col. 11, lines 1-9 and col. 12, lines 27-41).

As per claim **24**, Riddle discloses:

- wherein the disposition is employed for policy enforcement (col. 5, lines 30-38, col. 9, lines 28-62, col. 10, lines 19-56).

As per claim **25**, Riddle further discloses:

- employing the classification process for rate limiting (col. 5, line 39).

As per claim **26**, Riddle further discloses:

- employing the classification process for load balancing (col. 12, lines 14-25).

As per claim **27**, Riddle further discloses:

- employing the classification process to shape traffic (col. 9, lines 20-26 and col. 12, lines 27-41).

As per claim **28**, Riddle discloses an apparatus to classify a data packet, the apparatus comprising:

- a network interface device to receive the data packet from the physical network and pass the data packet to the root node of a classification tree, and the reverse, to receive the

data packet from the root node and send the data packet to the physical network (col. 9, lines 28-62, col. 10, lines 19-56 and col. 11, lines 25-36); and

- a packet module to successively pass the packet from child node to child node at a next tree level until a first child node of the next tree level of the classification tree which indicates a satisfaction of a node-criteria of the first child node, and to form the data packet into a matched packet until no first child node of at a succeeding next level indicates satisfaction of the first node-criteria of the first child node of the succeeding next level (col. 9, lines 28-62, col. 10, lines 19-56 and col. 11, lines 25-36).

As per claim **29**, Riddle discloses:

- wherein a portion of the apparatus is implemented as an accelerator chip (col. 5, lines 53-67, col. 6, lines 1-15 and col. 7, lines 10-28).

As per claim **30**, Riddle discloses:

- wherein the apparatus is employed for application level classification (col. 10, lines 59-67, col. 11, lines 1-9 and col. 12, lines 27-41).

As per claim **31**, Riddle further discloses:

- wherein the apparatus is employed as a firewall (col. 7, lines 10-28).

As per claim **32**, Riddle discloses:

- wherein the apparatus is employed as a border server (col. 5, lines 53-67 and col. 6, lines 1-15)

As per claim **33**, Riddle discloses:

- wherein the status indication is of the pmt type (col. 9, lines 28-62, col. 10, lines 19-56 and col. 11, lines 25-36).

As per claim 35, Riddle discloses an article of manufacture as recited in claim 34, the computer readable program code means in said article of manufacture further comprising:

- computer readable program code means for causing a computer to effect dynamically adding at least one node in at least one level of the classification tree (col. 5, lines 53-67, col. 9, lines 28-62, col. 10, lines 19-56 and col. 11, lines 25-36 and col. 13, lines 35-62).

As per claim 36, Riddle discloses an article of manufacture comprising

- a computer-usable medium having computer readable program code means embodied therein for causing classification of a data packet, the computer-readable program code means in said article of manufacture comprising computer readable program code means for causing a computer to effect the steps of claim 8 (col. 5, lines 53-67, col. 9, lines 28-62, col. 10, lines 19-56 and col. 11, lines 25-36 and col. 13, lines 35-62).

As per claim 37, Riddle discloses a computer program product comprising

- a computer usable medium having computer readable program code means embodied therein for causing a determination of a disposition of a packet, the computer readable program code means in said computer program product comprising computer readable program code means for causing a computer to effect the steps of claim 18 (col. 9, lines 28-62, col. 10, lines 19-56, col. 11, lines 25-36 and col. 11, lines 48-67).

As per claim 39, Riddle discloses an apparatus for determining disposition of a packet received at a child node, said apparatus comprising:

- an interrupt context of a control program, said child node existing within the interrupt context (col. 9, lines 28-62, col. 10, lines 19-56 and col. 11, lines 25-36);

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- an external process outside of the interrupt context of the control program (col. 9, lines 28-62, col. 10, lines 19-56, col. 11, lines 25-36 and col. 11, lines 48-67);
- means for passing said packet and a first disposition of said packet to the external process, said external process to augment the packet disposition by employing a process specific means and to return an augmented packet with an augmented disposition to the child node (col. 9, lines 28-62, col. 10, lines 19-56, col. 11, lines 25-36 and col. 11, lines 48-67); and
- said interrupt context including means for receiving said augmented packet and said augmented disposition from said external process (col. 9, lines 28-62, col. 10, lines 19-56, col. 11, lines 25-36 and col. 11, lines 48-67).

Response to Arguments

3. Applicant's arguments with respect to claims 1-39 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaShonda T. Jacobs whose telephone number is 703-305-7494. The examiner can normally be reached on 8:30 AM - 5:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 703-308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

LaShonda T. Jacobs
Examiner
Art Unit 2157

ltj
June 22, 2004


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